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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,690	03/29/2005	Robert Peter Scholl	DE 020220	1731

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EXAMINER	
ROY, SIKHA	

ART UNIT	PAPER NUMBER
2879	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No.	Applicant(s)	
	10/529,690	SCHOLL ET AL.	
	Examiner	Art Unit	
	Sikha Roy	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 March 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *0305,1005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

The Preliminary Amendment, filed on March 29, 2005 has been entered and acknowledged by the Examiner.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

As provided in 37 CFR 1.77(b) the specification should include following sections, each one with proper section headings such as 'Title of the Invention', 'Background of the Invention', 'Summary of the Invention', 'Brief Description of Drawing', 'Detailed Description of the Invention', 'Claims' and 'Abstract'. Appropriate correction is requested.

Claim Objections

Claims 6 and 7 are objected to because of the following informalities:

Claim 6 which depends from claim 3 recites the layer directly applied to molybdenum is preferably aluminum nitride or tantalum oxide. Tantalum oxide is neither a nitride nor a carbide. Proper clarification is required.

Claim 7 recites the limitation "the particular material" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Furthermore, the recitation of 'the reduction in the size of the fused press-seal can be obtained as a function of the particular material of which coating is composed' does not specifically claim any structure of the lamp and hence is objected.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,2, 7 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 2001102008 to Toshiba Lighting.

Regarding claim 1 JP 2001102008 discloses (Figs. 2,5 English translation para [0031]-[0040]) a high pressure gas discharge lamp having at least one gastight fused press seal between a glass like material 4 and molybdenum 1, wherein molybdenum in the fused press seal is exposed to oxidizing environment and at least a part of the molybdenum that is exposed to oxidizing environment is covered with a coating comprising silicon oxide SiO_2.

Regarding claim 2 JP 2001102008 discloses (para [0020]) the thickness of the oxidation-resistant coating is between 3-20 micrometers.

Regarding claim 7, JP 2001102008 discloses (para [0042]) this fused press seal (closure section) 4 having improved thermal resistance, the length can be reduced thus resulting in small efficient envelope of the lamp.

Regarding claim 9, JP 2001102008 discloses the lighting device comprises high pressure gas-discharge lamp.

Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication 2003/0052608 to Morimoto et al.

Regarding claim 1 Morimoto discloses (Figs. 1, 3 para [0018]-[0020], [0032],[0033]) a high pressure gas discharge lamp having at least one gastight fused press seal 12 between a glass like material and molybdenum 14, wherein molybdenum in the fused press seal is exposed to oxidizing environment and at least a part of the molybdenum that is exposed to oxidizing environment is covered with a coating 20 at least one type of metal oxide selected from titanium dioxide, tantalum oxide, zirconium dioxide, hafnium dioxide.

Regarding claim 2 Morimoto discloses ([0036]) the thickness of the coating layer is 50nm to 3000nm.

Regarding claim 3 Morimoto discloses (Fig. 4) the coating is built up from at least two layers, the base layer 21 and the following layer 20.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4- 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2003/0052608 to Morimoto et al. as applied to claim1 above, and further in view of U.S. Patent 6,777,875 to Steinman et al.

Regarding claim 4 Morimoto discloses the coating layer 20 following the base layer is made up of oxides but does not exemplify the coating that is applied directly to molybdenum is composed of carbide and /or nitride.

Steinman in same field of endeavor discloses (column 1 lines 46-67) the coating on the molybdenum can be chosen from titanium nitride or chromium carbide. Steinman further teaches these nitrides and carbides are suitable because they do not lead to increased brittleness of molybdenum end portion and they are thermally stable at very high temperatures.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to use nitrides or carbides for the base layer of Morimoto for carbides for reducing brittleness of molybdenum end portion and thermal stability at very high temperatures.

Regarding claim 5 Morimoto discloses the layer following the base layer is formed of silica but does not explicitly disclose the layer composed of alumina (Al_2O_3).

The selection of known material for a known purpose is within the skill of the art. Alumina is known to prevent oxidation of molybdenum (as evidenced by USPN 6,407,371 to Toya et al.) Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to substitute Al_2O_3 for silica for the layer following the base layer of Morimoto and Steinman since the selection of known material for a known purpose is considered to be within the skill of the art.

Regarding claim 6 Morimoto discloses the coating can be formed of Ta_2O_5.

Regarding claim 8 Steinman discloses (column 3 lines 1-3) the lamp is used for projection purposes.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USPN 3,753,026 to Goorissen discloses molybdenum in he pinch seal coated with silica for preventing oxidation. JP 2002260581 to Kamimura et al. discloses use of metal oxide and metal nitride coated on sealing foil resulting in suppressed reaction with discharge medium.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (571) 272-2463. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sikha Roy

Sikha Roy
Primary Examiner
Art Unit 2879